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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,527	03/06/2002	Alfred Edinger	1712918	7216

7590
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01/22/2004

EXAMINER

WYSZOMIERSKI, GEORGE P

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
10/070,527	EDLINGER, ALFRED	
Examiner	Art Unit	
George P Wyszomierski	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of the communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory maximum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any entered patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-27 and 37-43 is/are allowed.
- 6) ☒ Claim(s) 28-32 and 34 is/are rejected.
- 7) ☒ Claim(s) 33, 35 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-943)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No.(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No.(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1742

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Wessel et al. (U.S. Patent 3,891,730), for reasons of record in the Office Action of June 12, 2003. Wessel discloses an atomizing device which includes a tundish for liquid metal, an opening in the bottom of the tundish, and a tube or hollow area (see drawing features 4 or 44 in the drawing figures of Wessel) which includes an opening below the bottom of the tundish. This tube is height adjustable and is used in the prior art apparatus to inject gas to atomize the liquid metal. Thus, all portions of the apparatus as presently claimed are fully disclosed by Wessel et al.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 29, 31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessel et al., as set forth supra, in view of Riley (U.S. Patent 4,988,464).

Wessel discloses an apparatus substantially as presently claimed, as set forth above.

Wessel does not disclose the deflector body as presently claimed. The Riley patent indicates it

to be conventional in the art to utilize a cone-shaped deflector in an apparatus for atomizing molten metal. Consequently, the combined disclosures of Wessel et al. and Riley would have taught the claimed invention to a person of ordinary skill in the art.

5. Claims 28, 30 and 32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 6-8 of U.S. Patent No. 6,660,223. This is a new ground of rejection.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant claims and the '223 claims are to atomizing devices which include a tundish, an immersion tube, and a lance within the tube for injecting gases, the lance being height adjustable. The relationship between the various parts of the claimed apparatus and that claimed in the '223 patent are substantially identical. The two sets of claims differ in that the device claimed in '223 is "for atomizing liquid oxidic slag or glass melts", while that presently claimed is "for atomizing metal melts". However, both the instant claims and the '223 claims appear to be drawn to apparatuses which include a substantially identical arrangement of parts, and the respective apparatuses claimed in the two sets of claims both appear capable of functioning in the manner defined in the opposing set of claims (depending principally upon the melting point of the material being atomized). Thus, no patentable distinction is seen between the device as defined in the '223 claims and that as presently claimed.

6. In a response filed November 12, 2003, Applicant alleges that the instant claims can be distinguished from Wessel in that the position of the immersion tube is different in the claimed device than in the prior art, and/or that the lance of the prior art is not height-adjustable. Applicant's arguments have been carefully considered, but are not persuasive because:

a) The immersion tube in the instant claims is defined as "forming an annular gap between said immersion tube...and said interior surface of the tundish..., said annular gap surrounding said outlet opening for the liquid metal melt". The mandrel 4 of Wessel is in a position which fully meets this description.

b) Contrary to Applicant's statement on page 9 of the November 12 response, the examiner is not taking the immersion tube (or mandrel 4) of Wessel to be the lance. Rather, the examiner is taking the plunger 5 (which is inside the mandrel 4 and allows the atomizing gas to escape) to be the lance, and the plunger 5 can be vertically adjusted (see Wessel column 3, line 20).

7. Claims 15-27 and 37-43 are allowable over the prior art of record. Claims 33, 35 and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. Effective October 1, 2003, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1700.